

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009862**Date Inspected:** 30-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG / Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Sun Bo, Mr. Zhu Tian Shu Mr. Tu Jun, Mr. Li Ming

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG BAY 2

This QA Inspector observed ZPMC welder Mr. Rao Wei, stencil 049972 is using shielded metal arc welding procedure specification WPS-B-T-2112 to make OBG floor beam stiffener plate fillet tack weld FB3047-001-090. This QA Inspector observed a welding current of approximately 165 amps, the base material appears to be clean where the tack welds were being made, and Mr. Rao Wei is certified to make this weld. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Guo Ping, stencil 045251 is using shielded metal arc process WPS-B-T-2112 to make tack OBG floor beam fillet weld FB3027-001-001. This QA Inspector observed a welding current of approximately 170 amps, the base material is clean where the tack welds were being made and Mr. Li Guo Ping is certified to make this weld. This QA Inspector observed the shielded metal arc welding

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electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

OBG BAY 3

This QA Inspector observed ZPMC welder Mr. Chen Chuanzong, stencil 044824 is using flux cored welding procedure WPS-B-T-2233-TC-U4b-F to make OBG Corner Assembly weld CA084-082. This QA Inspector observed a welding current of approximately 220 amps and 26 volts. This QA Inspector observed ZPMC Quality Control Inspector Mr. Guo Yuan Ting monitoring this welding and Mr. Chen Chuanzong is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Liu Ming, stencil 044790 is using flux cored welding process WPS-B-T-2233-TC-U4b-F to make OBG Corner Assembly weld CA085-045. This QA Inspector measured a welding current of approximately 220 amps and 26.7 volts. This welding is being monitored by ZPMC QC Inspector Mr. Guo Yuan Ting who previously recorded a welding current of 206 amps and 25.2 volts. This QA Inspector confirmed that Mr. Liu Ming is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

OBG BAY 9

This QA Inspector observed ZPMC welder Mr. Xiang Jie, stencil 059378 is using flux cored welding procedure WPS-B-T-2133 to make deck plate weld DP3065-001-106. This weld attaches a stiffener plate to the inside of a closed rib for OBG deck panel DP3065-001. This QA Inspector observed the base material had been cleaned of oxides where the stiffener welds are to be installed. This QA Inspector observed a welding current of approximately 203 amps 25.0 volts and Mr. Xiang Jie is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Guo Yin, stencil 059443 is using flux cored welding procedure WPS-B-T-2133 to make deck plate weld DP3065-001-235. This weld attaches a stiffener plate to the inside of closed rib for OBG deck panel DP3065-001. This QA Inspector observed the base material had been cleaned of oxides where the stiffener welds are to be installed. This QA Inspector observed a welding current of approximately 225 amps 25.0 volts and Mr. Xu Guo Yin is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

TOWER BAY 10

This QA Inspector observed ZPMC welder Ms. Bu Xue Zhen, stencil 052075 is using welding WPS-B-T-2233-B-U2A-T-1 to make tower weld NSTL-3K/K-08. This QA Inspector observed a welding current of approximately 220 amps and 27.5 volts and Quality Control (QC) Certified Welding Inspector Mr. Tu Jun had previously recorded a welding current of 214 amps and 26.3 volts. This QA Inspector observed that Ms. Bu Xue Zhen is certified to make this weld and this base material appears to have been preheated using electric heating elements. Items observed on this date appeared to generally comply with applicable contract documents.

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This QA Inspector observed ZPMC welder Ms. Dong Yumei, stencil 054069, is using welding WPS-B-T-2233-B-U2A-T-1 to make tower weld NSTL3-3K/K-29. This QA Inspector observed a ZPMC Quality Control (QC) Certified Welding Inspector Mr. Tu Jun had previously recorded a welding current of 215 amps and 26.5 volts. This QA Inspector observed that Ms. Dong Yumei is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Gong Zhi, stencil 050041 is using flux cored welding process WPS-B-T-2232-B-U4b-F to complete weld SSTL4-1B/L-4B on the interior surface of south tower lift 4 between skin plate A and skin plate B. This QA Inspector observed a welding current of approximately 310 amps and Quality Control (QC) Certified Welding Inspector Mr. Li Ming is monitoring the base material preheat and interpass temperatures and Mr. Ming had previously recorded a welding current of 312 amps and 31.2 volts. This QA Inspector observed that Mr. Wang Gong Zhi is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
